

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-3 and 7-11 are pending in this application. Claims 1, 7 and 8 are amended; and Claim 4 is canceled by the present amendment. Support for the amended claims can be found in the original specification, claims and drawings.¹ No new matter is presented.

Claims 1-4 and 7-11 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 5,699,474 to Suzuki et al. (hereinafter Suzuki) in view of U.S. Patent No. 6,864,747 to Mercier.

In response to the rejection based on Suzuki and Mercier, Applicants respectfully submit that amended independent Claims 1, 7 and 8 recite novel features not taught or rendered obvious by the applied references.

Amended independent Claim 1 relates to a transmitting apparatus for converting a coded bit stream into a trick play output (e.g., slow play, fast forward, fast rewind, etc.). The apparatus comprises a means for accumulating the coded bit stream, the coded bit stream including an intra-frame coded picture, a forward predictive-coded picture, and a bidirectionally predictive-coded picture. An output control means controls an output of the coded bit stream in an output mode corresponding to a designated trick play operation. Claim 1 is further amended to recite that a slow operation (e.g., slow play) is output by removing all of the bidirectionally predictive-coded pictures from the output. Specifically, amended independent Claim 1 recites, in part,

...the coded bit stream is output by a *slow operation* by ***removing all the bidirectionally predictive-coded pictures and*** repeating output processes such that after the intra-frame coded picture and the forward predictive-coded picture which repetitively appear at intervals (m), the copied pictures of the number larger than said (m) are outputted.

¹ e.g., specification, pp. 17-18 and Figs. 5A, 5B and 9.

Independent Claims 7 and 8, while directed to alternative embodiments, are amended to recite substantially similar features. Accordingly, the arguments presented below are applicable to each of independent Claims 1, 7, and 8.

Support for the amended independent Claims can be found at least at pp. 17-18 and Figs. 5A, 5B and 9 of the specification, which discloses that skip P pictures are placed between the I picture and the P picture in order to control the slow play operation, and “no B picture is displayed” when performing a slow play operation in this manner.

In rejecting Claim 1, the Official Action admits that Suzuki fails to teach or suggest “repeating processes such that after the intra-frame coded picture and the forward predictive-coded picture which repetitively appear at intervals (m), the copied pictures of the number larger than said (m) are outputted, the coded bit stream is outputted by a slow operation.” In an attempt to remedy this deficiency, the Official Action relies on Mercier, and states that it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the cited references to arrive at Applicants claims.

In addressing the above noted “slow play operation,” the Official Action relies on col. 9, line 64-col. 10, line 54 of Mercier. This cited portion of Mercier describes that a video stream (1200) is input to a trick mode processor (1210), which outputs a modified video stream (1220). Referencing Fig. 13, Mercier further describes a sequence of frames where the first frame (1300) is a first original picture and “empty B frame(s) may be inserted into the video stream to create a slow motion or pause effect.” Fig. 13, in turn, shows the video stream in which a bidirectionally predictive-coded picture (1310) is inserted between the original pictures (1300, 1320) in a slow play operation.

Mercier, therefore, fails to teach or suggest outputting a coded bit stream by “a *slow operation by removing all the bidirectionally predictive-coded pictures*,” as recited in amended independent Claim 1.

Further, dependent Claim 2 recites that the “the copied picture is outputted as a *skip P picture having a structure such that macroblocks other than macroblocks at both ends of a slice are skipped.*” In addressing this claimed feature, the Official Action again relies on col. 9, line 64-col. 10, line 54 of Mercier and states that “this is an inherent feature of MPEG.”

The cited portion of Mercier, however, fails to teach or suggest outputting a skip P picture, whatsoever, much less that macroblocks other than those at both ends of a slice are skipped to form the skip P picture. Further, this feature is not inherent based on the description provided by Mercier.

“In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonable support the determination of the allegedly inherent characteristic necessarily flow from the teachings of the applied prior art.” See Ex parte Levy, 17 USPQ2d 1461, at 1464 (Bd. Pat. App. & Inter. 1990) and M.P.E.P. § 2112.

As noted above, Mercier fails to teach or suggest outputting a skip P picture by skipping macroblocks, other than those at both ends of a slice. Also, as is apparent from the present application and the cited references, the various methods of modifying a video stream to perform trick play operations is not an “inherent feature of MPEG.”

Therefore, Applicants respectfully submits that the features recited in Claim 2 do not necessarily flow from the description provided in the applied references.

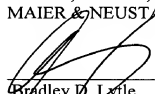
Accordingly, Applicants respectfully request the rejection of independent Claim 1 (and the claims that depend therefrom) and dependent Claim 2 under 35 U.S.C. § 103 be withdrawn. For substantially similar reasons as provided with respect to independent Claim 1, Applicants submit that independent Claims 7 and 8 (and the claims that depend therefrom) patentably define over the applied references.

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Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-3 and 7-11 patentably define over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested

Respectfully submitted,

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